

Input and Output: Offset Reflective System ORS18a

Data for any device (d) or
elementary (e) colour:

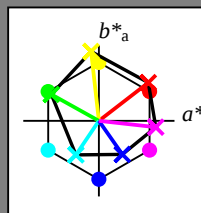
HIC^* -

hue text for the colours
of this page:

H^*_- = R00Y-, R25Y-, ..., B75R-

ORS20a; adapted (a) CIELAB data

H^*_-	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_	48.4	66.1	40.2	77.3
R25Y_100_100_	56.8	48.0	50.5	69.6
R50Y_100_100_	68.6	25.0	63.9	68.6
R75Y_100_100_	80.6	4.8	77.2	77.3
Y00G_100_100_	90.2	-9.6	88.2	88.7
Y25G_100_100_	83.2	-18.4	79.9	81.9
Y50G_100_100_	73.3	-31.7	62.7	70.2
Y75G_100_100_	62.0	-49.7	43.2	65.8
G00B_100_100_	55.8	-65.2	33.8	73.4
G25B_100_100_	59.3	-50.3	-9.0	51.0
G50B_100_100_	63.0	-30.5	-42.0	51.9
G75B_100_100_	45.7	-5.7	-44.6	44.9
B00R_100_100_	27.5	25.9	-47.3	53.9
B25R_100_100_	38.3	52.6	-28.5	59.8
B50R_100_100_	49.5	73.5	-9.0	74.0
B75R_100_100_	48.9	69.3	12.9	70.4



% Gamut

$u^*_{rel} = 92$

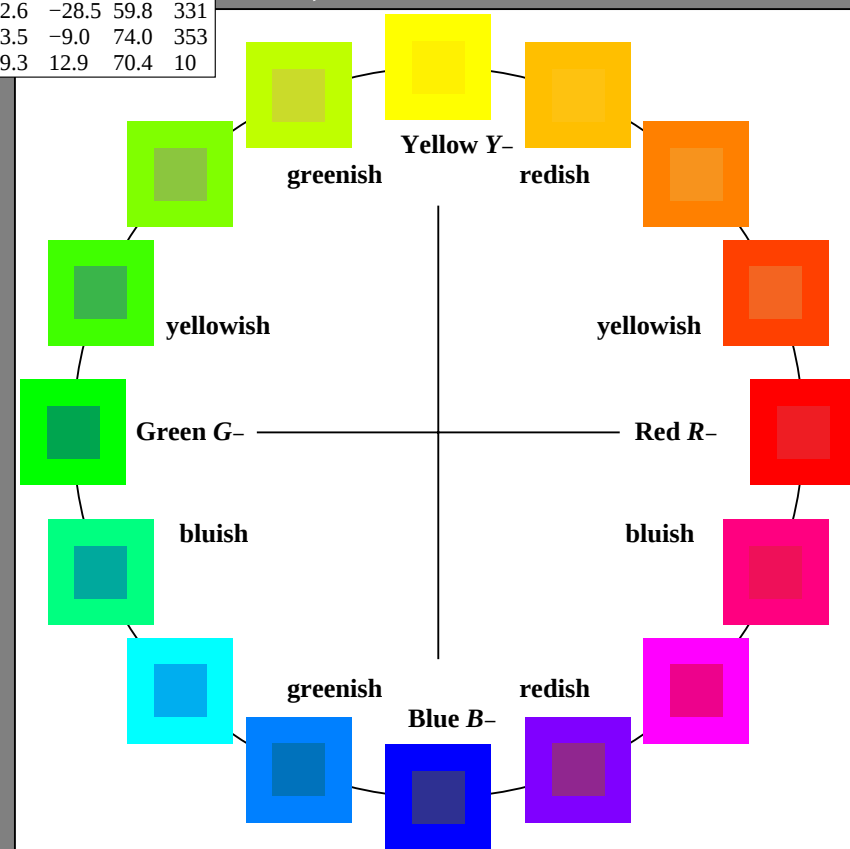
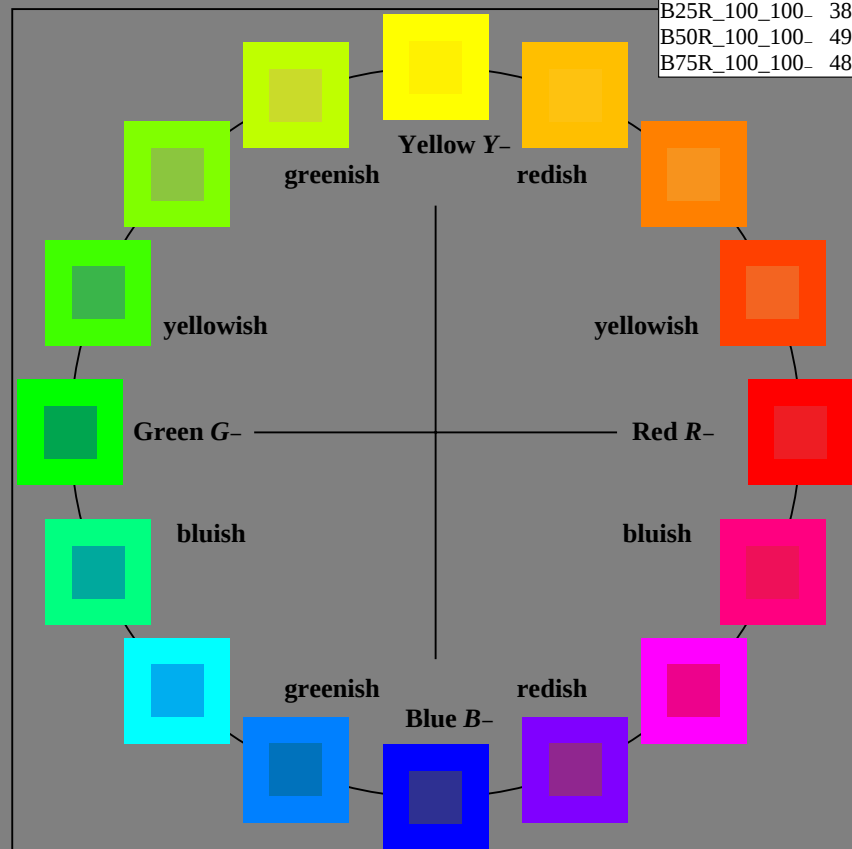
% Regularity

$g^*_{H,rel} = 57$

$g^*_{C,rel} = 58$

ORS18a; adapted (a) CIELAB data

Name	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R-,Ma	47.9	65.3	50.5	82.6
Y-,Ma	90.3	-10.2	91.7	92.3
G-,Ma	50.9	-62.8	34.9	71.9
C-,Ma	58.6	-30.3	-45.0	54.2
B-,Ma	25.7	31.0	-44.4	54.2
M-,Ma	48.1	75.2	-8.3	75.7
N-,Ma	18.0	0.0	0.0	0.0
W-,Ma	95.4	0.0	0.0	0.0
R-,CIE	39.9	58.7	27.9	65.0
Y-,CIE	81.2	-2.8	71.5	71.6
G-,CIE	52.2	-42.4	13.6	44.5
B-,CIE	30.5	1.4	-46.4	46.4



1-003031-L0

SE070-7N

TUB-test chart SE07; 16 hues, offset standard paper APCO
Test chart according to DIN 33872

input: $rgb/cmyk \rightarrow rgb/cmyk$
output: no change

Input and Output: Offset Reflective System ORS18a

Data for any device (d) or elementary (e) colour:

 HIC^*_d

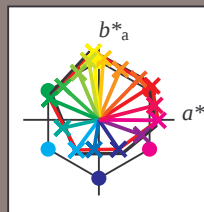
hue text for the colours

of this page:

 $H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$

ORS20a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_d	46.4	70.3	44.9	83.4
R25Y_100_100_d	54.2	52.8	53.7	75.3
R50Y_100_100_d	66.4	28.5	66.7	72.5
R75Y_100_100_d	79.7	5.8	81.0	81.2
Y00G_100_100_d	88.0	-6.8	89.7	90.0
Y25G_100_100_d	81.0	-13.5	78.3	79.5
Y50G_100_100_d	70.6	-26.9	62.2	67.8
Y75G_100_100_d	57.9	-47.3	43.7	64.5
G00B_100_100_d	49.6	-65.0	27.6	70.6
G25B_100_100_d	53.0	-48.2	-10.8	49.4
G50B_100_100_d	57.0	-29.7	-39.8	49.7
G75B_100_100_d	43.1	-6.3	-39.3	39.8
B00R_100_100_d	25.8	26.0	-38.7	46.7
B25R_100_100_d	36.7	56.5	-19.8	59.9
B50R_100_100_d	47.2	78.3	-0.6	78.3
B75R_100_100_d	46.7	74.0	19.0	76.4



% Gamut

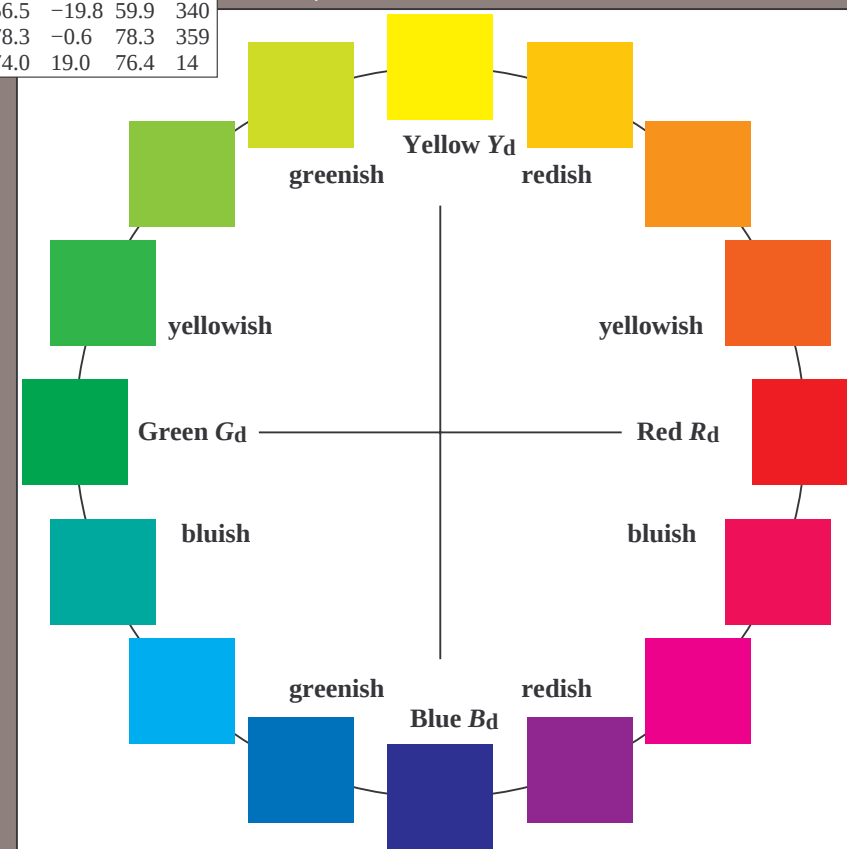
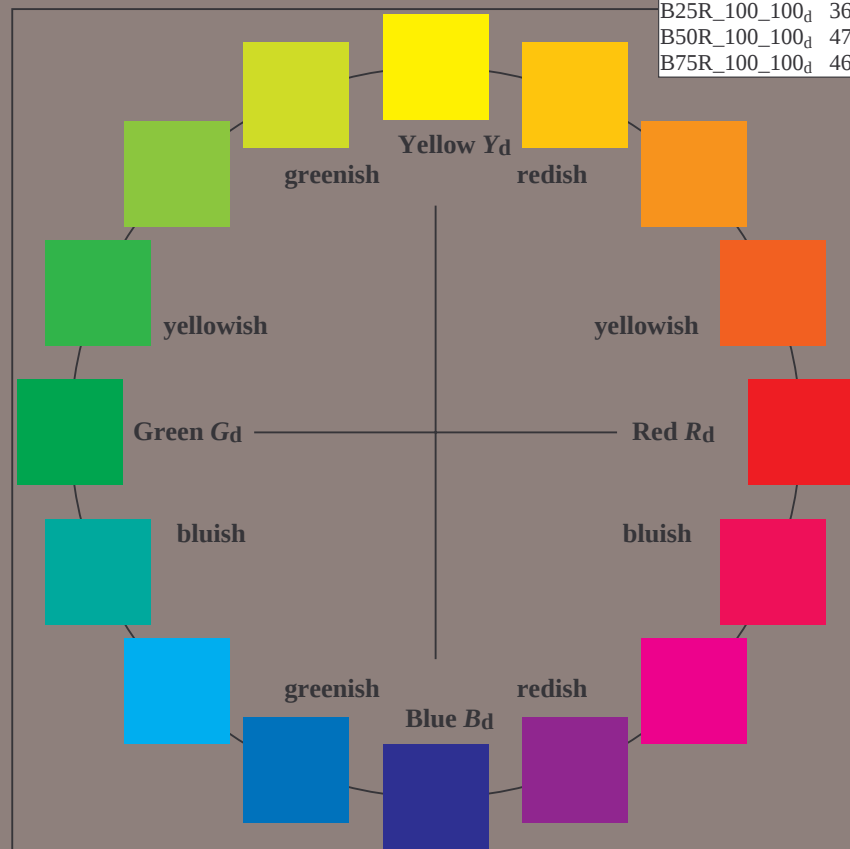
 $u^*_{rel} = 92$

% Regularity

 $g^*_{H,rel} = 57$ $g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data

Name	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{d, Ma}	46.4	70.3	44.9	83.4
Y _{d, Ma}	88.0	-6.8	89.7	90.0
G _{d, Ma}	49.6	-65.0	27.6	70.6
C _{d, Ma}	57.0	-29.7	-39.8	49.7
B _{d, Ma}	25.8	26.0	-38.7	46.7
M _{d, Ma}	47.2	78.3	-0.6	78.3
N _{d, Ma}	23.6	0.0	0.0	0.0
W _{d, Ma}	96.4	0.0	0.0	0.0
R _{d, CIE}	39.9	58.7	27.9	65.0
Y _{d, CIE}	81.2	-2.8	71.5	71.6
G _{d, CIE}	52.2	-42.4	13.6	44.5
B _{d, CIE}	30.5	1.4	-46.4	46.4



1-003131-L0

SE070-70

TUB-test chart SE07; 16 hues, offset standard paper APCO

Test chart according to DIN 33872, 3D=0, de=0, cmy0

input: $rgb/cmyk \rightarrow rgb_d$ output: transfer to $cmy0_d$

1-003131-F0

Input and Output: Offset Reflective System ORS18a

Data for any device (d) or elementary (e) colour:

 HIC^*_d

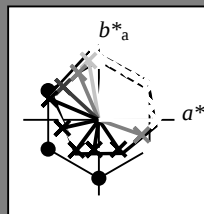
hue text for the colours

of this page:

 $H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$

ORS20a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_d	46.4	70.3	44.9	83.4
R25Y_100_100_d	54.2	52.8	53.7	75.3
R50Y_100_100_d	66.4	28.5	66.7	72.5
R75Y_100_100_d	79.7	5.8	81.0	81.2
Y00G_100_100_d	88.0	-6.8	89.7	90.0
Y25G_100_100_d	81.0	-13.5	78.3	79.5
Y50G_100_100_d	70.6	-26.9	62.2	67.8
Y75G_100_100_d	57.9	-47.3	43.7	64.5
G00B_100_100_d	49.6	-65.0	27.6	70.6
G25B_100_100_d	53.0	-48.2	-10.8	49.4
G50B_100_100_d	57.0	-29.7	-39.8	49.7
G75B_100_100_d	43.1	-6.3	-39.3	39.8
B00R_100_100_d	25.8	26.0	-38.7	46.7
B25R_100_100_d	36.7	56.5	-19.8	59.9
B50R_100_100_d	47.2	78.3	-0.6	78.3
B75R_100_100_d	46.7	74.0	19.0	76.4



% Gamut

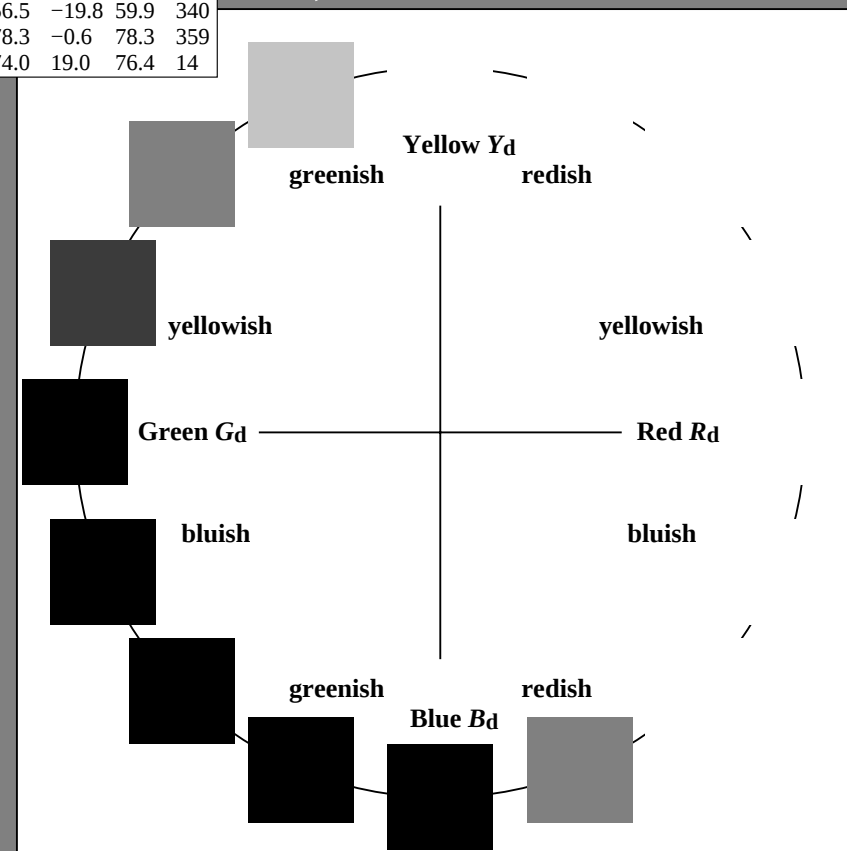
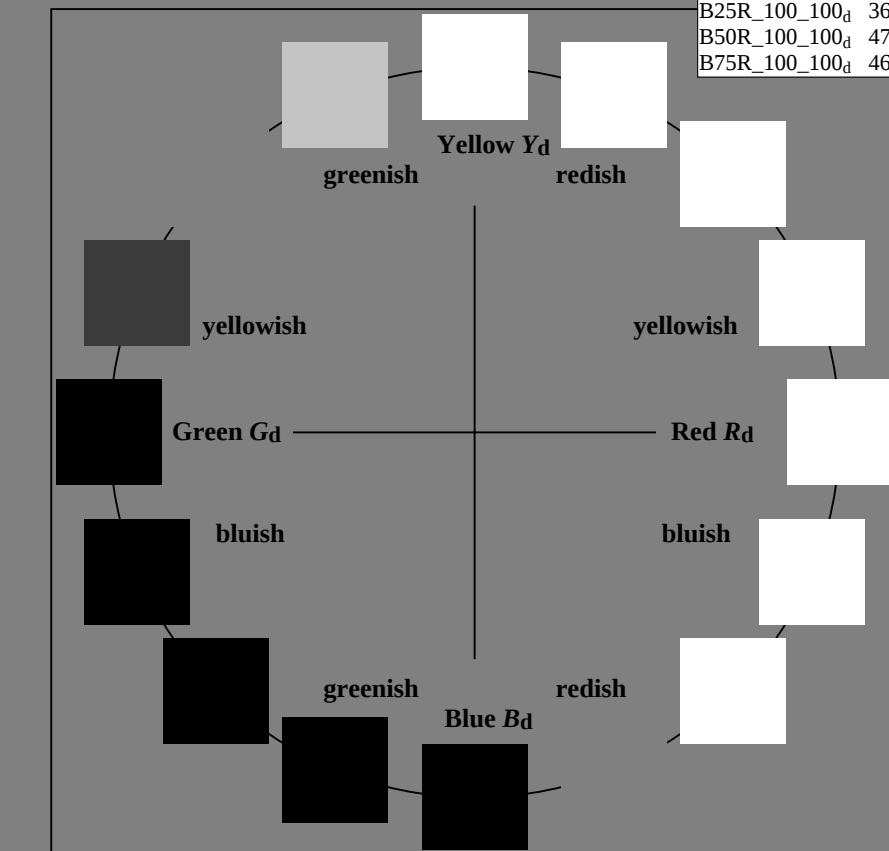
 $u^*_{rel} = 92$

% Regularity

 $g^*_{H,rel} = 57$ $g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data

Name	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{d, Ma}	46.4	70.3	44.9	83.4
Y _{d, Ma}	88.0	-6.8	89.7	90.0
G _{d, Ma}	49.6	-65.0	27.6	70.6
C _{d, Ma}	57.0	-29.7	-39.8	49.7
B _{d, Ma}	25.8	26.0	-38.7	46.7
M _{d, Ma}	47.2	78.3	-0.6	78.3
N _{d, Ma}	23.6	0.0	0.0	0.0
W _{d, Ma}	96.4	0.0	0.0	0.0
R _{d, CIE}	39.9	58.7	27.9	65.0
Y _{d, CIE}	81.2	-2.8	71.5	71.6
G _{d, CIE}	52.2	-42.4	13.6	44.5
B _{d, CIE}	30.5	1.4	-46.4	46.4



1-003231-L0

SE070-70

TUB-test chart SE07; 16 hues, offset standard paper APCO
Test chart according to DIN 33872, 3D=0, de=0, cmy0input: $rgb/cmyk \rightarrow rgb_d$
output: transfer to $cmy0_d$

1-003231-F0

Input and Output: Offset Reflective System ORS18a

Data for any device (d) or elementary (e) colour:

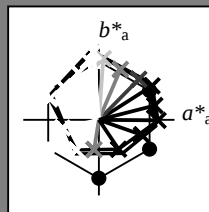
 HIC^*_d

hue text for the colours of this page:

 $H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$

ORS20a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_d	46.4	70.3	44.9	83.4
R25Y_100_100_d	54.2	52.8	53.7	75.3
R50Y_100_100_d	66.4	28.5	66.7	72.5
R75Y_100_100_d	79.7	5.8	81.0	81.2
Y00G_100_100_d	88.0	-6.8	89.7	90.0
Y25G_100_100_d	81.0	-13.5	78.3	79.5
Y50G_100_100_d	70.6	-26.9	62.2	67.8
Y75G_100_100_d	57.9	-47.3	43.7	64.5
G00B_100_100_d	49.6	-65.0	27.6	70.6
G25B_100_100_d	53.0	-48.2	-10.8	49.4
G50B_100_100_d	57.0	-29.7	-39.8	49.7
G75B_100_100_d	43.1	-6.3	-39.3	39.8
B00R_100_100_d	25.8	26.0	-38.7	46.7
B25R_100_100_d	36.7	56.5	-19.8	59.9
B50R_100_100_d	47.2	78.3	-0.6	78.3
B75R_100_100_d	46.7	74.0	19.0	76.4



% Gamut

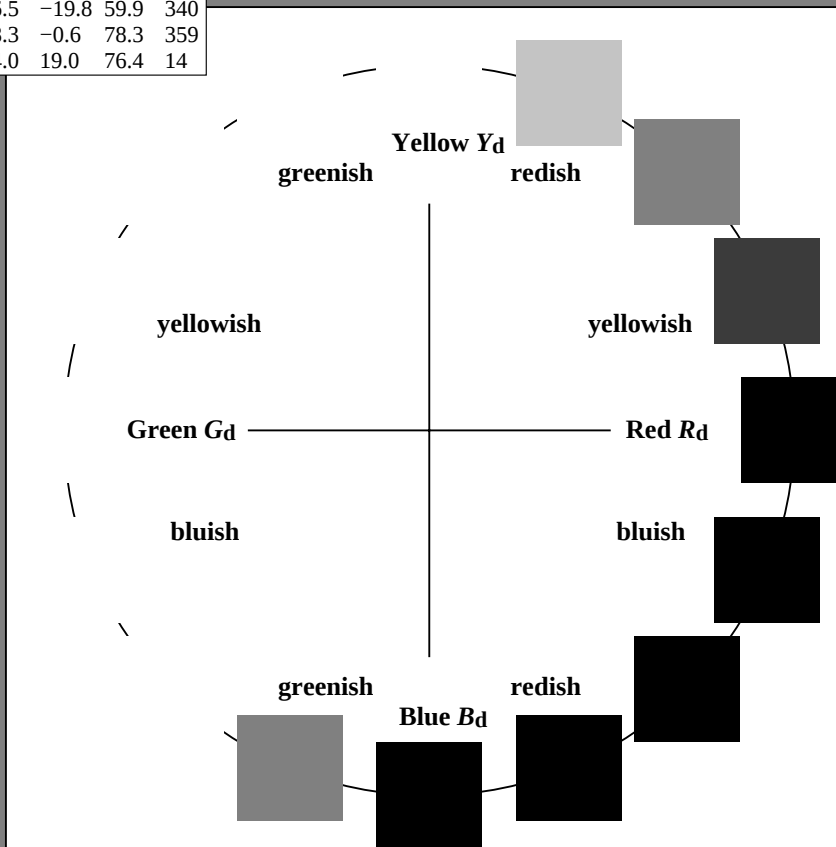
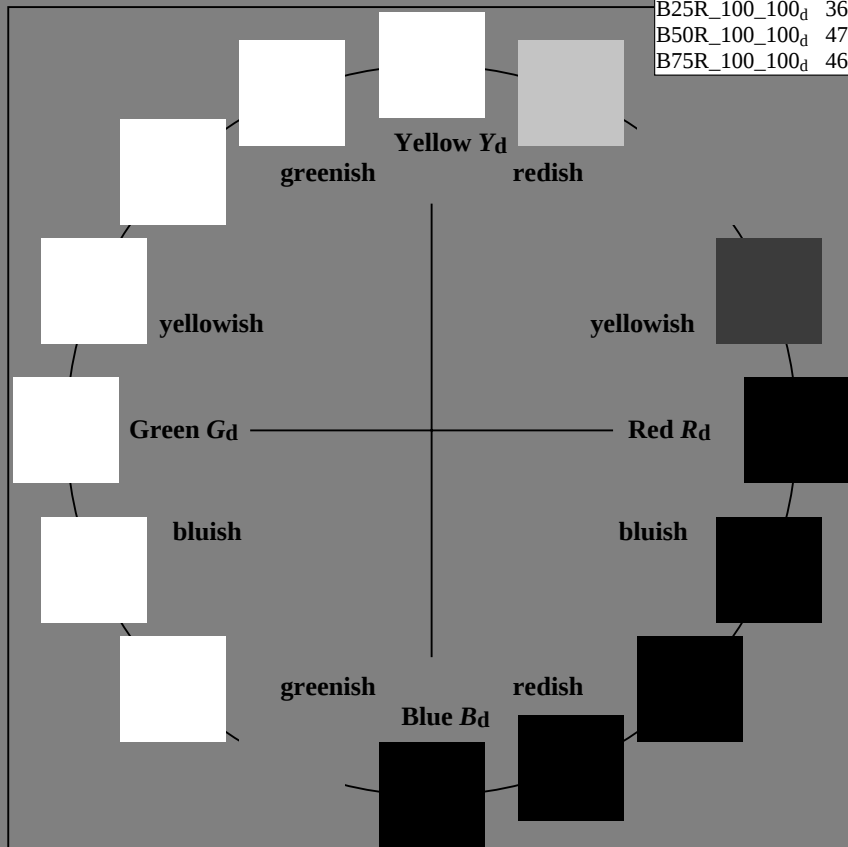
 $u^*_{rel} = 92$

% Regularity

 $g^*_{H,rel} = 57$ $g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data

Name	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{d, Ma}	46.4	70.3	44.9	83.4
Y _{d, Ma}	88.0	-6.8	89.7	90.0
G _{d, Ma}	49.6	-65.0	27.6	70.6
C _{d, Ma}	57.0	-29.7	-39.8	49.7
B _{d, Ma}	25.8	26.0	-38.7	46.7
M _{d, Ma}	47.2	78.3	-0.6	78.3
N _{d, Ma}	23.6	0.0	0.0	0
W _{d, Ma}	96.4	0.0	0.0	0
R _{d, CIE}	39.9	58.7	27.9	65.0
Y _{d, CIE}	81.2	-2.8	71.5	71.6
G _{d, CIE}	52.2	-42.4	13.6	44.5
B _{d, CIE}	30.5	1.4	-46.4	46.4



1-003331-L0

SE070-70

TUB-test chart SE07; 16 hues, offset standard paper APCO

Test chart according to DIN 33872, 3D=0, de=0, cmy0

input: $rgb/cmyk \rightarrow rgb_d$ output: transfer to $cmy0_d$

1-003331-F0

Input and Output: Offset Reflective System ORS18a

Data for any device (d) or elementary (e) colour:

 HIC^*_d

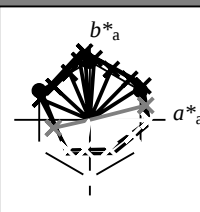
hue text for the colours

of this page:

 $H^*_d = R00Y_d, R25Y_d, \dots, B75R_d$

ORS20a; adapted (a) CIELAB data

H^*_d	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R00Y_100_100_d	46.4	70.3	44.9	83.4
R25Y_100_100_d	54.2	52.8	53.7	75.3
R50Y_100_100_d	66.4	28.5	66.7	72.5
R75Y_100_100_d	79.7	5.8	81.0	81.2
Y00G_100_100_d	88.0	-6.8	89.7	90.0
Y25G_100_100_d	81.0	-13.5	78.3	79.5
Y50G_100_100_d	70.6	-26.9	62.2	67.8
Y75G_100_100_d	57.9	-47.3	43.7	64.5
G00B_100_100_d	49.6	-65.0	27.6	70.6
G25B_100_100_d	53.0	-48.2	-10.8	49.4
G50B_100_100_d	57.0	-29.7	-39.8	49.7
G75B_100_100_d	43.1	-6.3	-39.3	39.8
B00R_100_100_d	25.8	26.0	-38.7	46.7
B25R_100_100_d	36.7	56.5	-19.8	59.9
B50R_100_100_d	47.2	78.3	-0.6	78.3
B75R_100_100_d	46.7	74.0	19.0	76.4



% Gamut

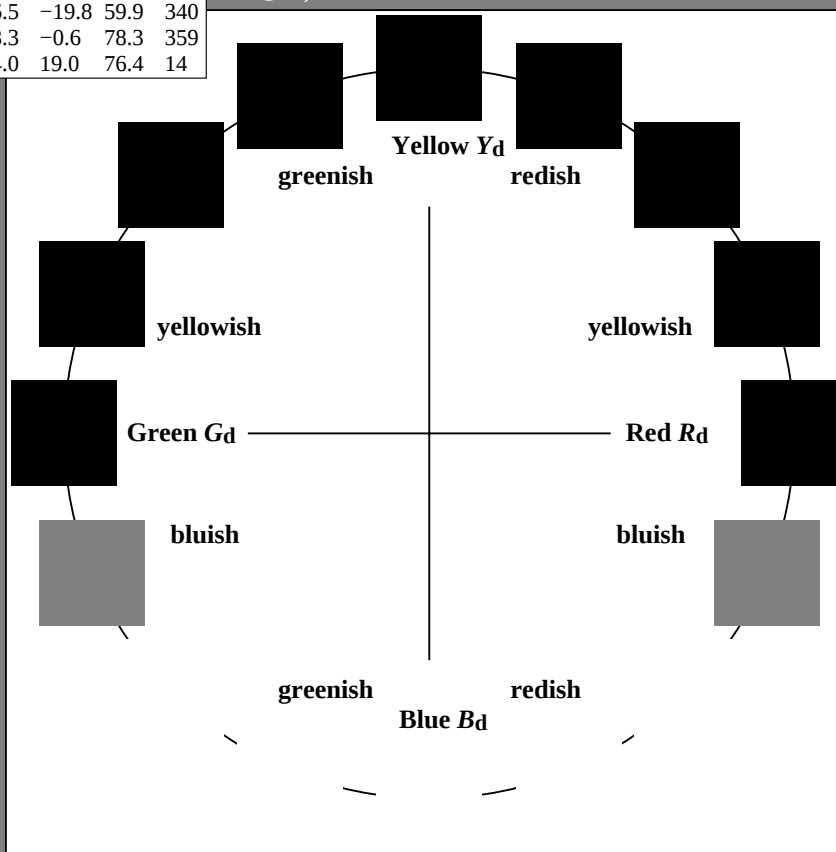
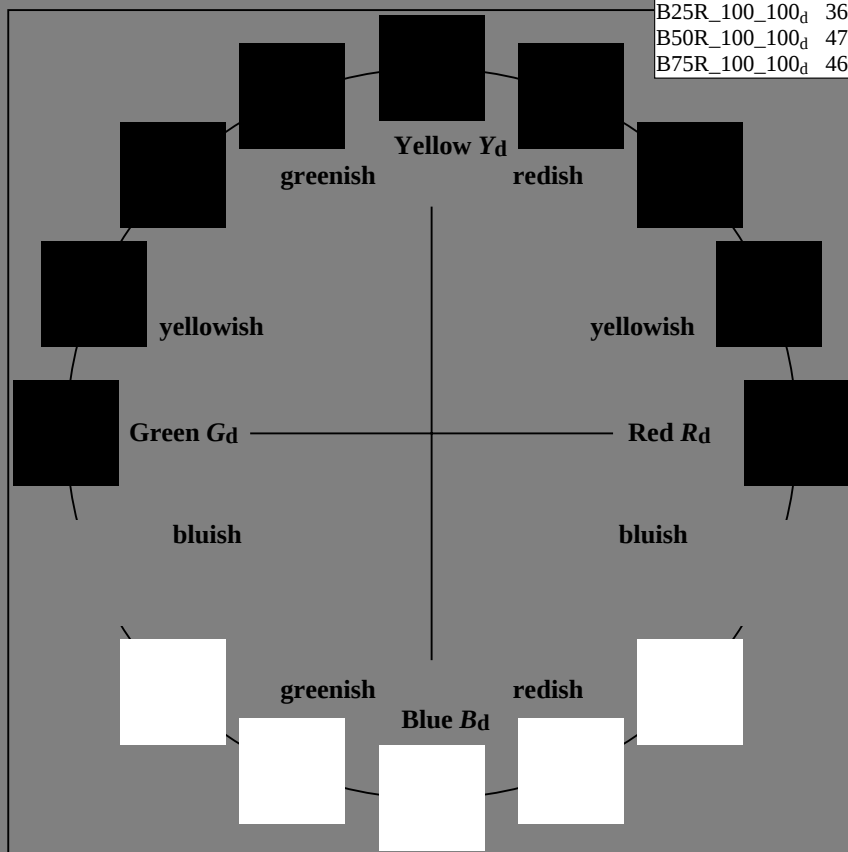
 $u^*_{rel} = 92$

% Regularity

 $g^*_{H,rel} = 57$ $g^*_{C,rel} = 58$

ORS20a; adapted (a) CIELAB data

Name	$L^*=L^*_a a^*_a$	b^*_a	$C^*_{ab,a}$	$h^*_{ab,a}$
R _{d, Ma}	46.4	70.3	44.9	83.4
Y _{d, Ma}	88.0	-6.8	89.7	90.0
G _{d, Ma}	49.6	-65.0	27.6	70.6
C _{d, Ma}	57.0	-29.7	-39.8	49.7
B _{d, Ma}	25.8	26.0	-38.7	46.7
M _{d, Ma}	47.2	78.3	-0.6	78.3
N _{d, Ma}	23.6	0.0	0.0	0
W _{d, Ma}	96.4	0.0	0.0	0
R _{d, CIE}	39.9	58.7	27.9	65.0
Y _{d, CIE}	81.2	-2.8	71.5	71.6
G _{d, CIE}	52.2	-42.4	13.6	44.5
B _{d, CIE}	30.5	1.4	-46.4	46.4



1-003431-L0

SE070-70

TUB-test chart SE07; 16 hues, offset standard paper APCO

Test chart according to DIN 33872, 3D=0, de=0, cmy0

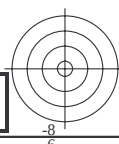
input: $rgb/cmyk \rightarrow rgb_d$ output: transfer to $cmy0_d$

1-003431-F0

SE0700A

TUB registration: 20130201-SE07/SE07L0NP.PDF /.PS
application for measurement of offset print output, separationcmy0 (CMY0)

TUB material: code=rha4ta



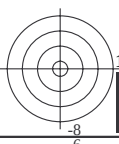
http://130.149.60.45/~farbmetrik/SE07/SE07L0NP.PDF /.PS; transfer output
N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 6/33



see similar files: <http://130.149.60.45/~farbmetrik/SE07/SE07.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

SE070-70
TUB-test chart SE07; 16 hues, offset standard paper APCO
Test chart according to DIN 33872, 3D=0, de=0, cmy0

input: $rgb/cmyk \rightarrow rgb_d$
output: transfer to $cmy0_d$



1-003531-E0

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.6, 94.4, 157.0, 233.3, 303.9, 359.5$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$J=Y_d$ Yellow

$LCH^*_d = 88.0 \ 90.0 \ 94.3$

$LAB^*_d = 88.0 \ -6.8 \ 89.7$

$rgb^*_d = 1.0 \ 1.0 \ 0.0$

$L=G_d$ leaf-green

$LCH^*_d = 49.6 \ 70.6 \ 157.0$

$LAB^*_d = 49.6 \ -65.0 \ 27.6$

$rgb^*_d = 0.0 \ 1.0 \ 0.0$

$C=C_d$ cyan-blue

$LCH^*_d = 57.0 \ 49.7 \ 233.2$

$LAB^*_d = 57.0 \ -29.7 \ -39.8$

$rgb^*_d = 0.0 \ 1.0 \ 1.0$

$O=R_d$ orange-red

$LCH^*_d = 46.4 \ 83.4 \ 32.5$

$LAB^*_d = 46.4 \ 70.3 \ 44.9$

$rgb^*_d = 1.0 \ 0.0 \ 0.0$

$M=M_d$ magenta-red

$LCH^*_d = 47.2 \ 78.3 \ 359.5$

$LAB^*_d = 47.2 \ 78.3 \ -0.6$

$rgb^*_d = 1.0 \ 0.0 \ 1.0$

$V=B_d$ violet-blue

$LCH^*_d = 25.8 \ 46.7 \ 303.9$

$LAB^*_d = 25.8 \ 26.0 \ -38.7$

$rgb^*_d = 0.0 \ 0.0 \ 1.0$

Y_e yellow

$LCH^*_e = 85.8 \ 87.5 \ 92.3$

$LAB^*_e = 85.8 \ -3.5 \ 87.4$

$rgb^*_{de} = 1.0 \ 0.93 \ 0.0$

G_e green

$LCH^*_e = 50.3 \ 65.8 \ 162.2$

$LAB^*_e = 50.3 \ -62.6 \ 20.1$

$rgb^*_{de} = 0.0 \ 1.0 \ 0.112$

C_e blue-green

$LCH^*_e = 55.4 \ 47.3 \ 216.9$

$LAB^*_e = 55.4 \ -37.8 \ -28.4$

$rgb^*_{de} = 0.0 \ 1.0 \ 0.767$

B_e blue

$LCH^*_e = 38.7 \ 38.9 \ 271.7$

$LAB^*_e = 38.7 \ 1.1 \ -38.9$

$rgb^*_{de} = 0.0 \ 0.38 \ 1.0$

R_e red

$LCH^*_e = 46.6 \ 79.2 \ 25.4$

$LAB^*_e = 46.6 \ 71.5 \ 34.1$

$rgb^*_{de} = 1.0 \ 0.0 \ 0.219$

M_e blue-red

$LCH^*_e = 31.5 \ 53.5 \ 328.6$

$LAB^*_e = 31.5 \ 45.7 \ -27.9$

$rgb^*_{de} = 0.319 \ 0.0 \ 1.0$

Y_s yellow

$LCH^*_s = 83.5 \ 84.9 \ 90.0$

$LAB^*_s = 83.5 \ 0.0 \ 84.9$

$rgb^*_{ds} = 1.0 \ 0.86 \ 0.0$

G_s green

$LCH^*_s = 52.7 \ 66.4 \ 150.0$

$LAB^*_s = 52.7 \ -57.5 \ 33.2$

$rgb^*_{ds} = 0.083 \ 1.0 \ 0.0$

R_s red

$LCH^*_s = 46.5 \ 81.7 \ 30.0$

$LAB^*_s = 46.5 \ 70.7 \ 40.8$

$rgb^*_{ds} = 1.0 \ 0.0 \ 0.084$

M_s blue-red

$LCH^*_s = 32.0 \ 54.2 \ 330.0$

$LAB^*_s = 32.0 \ 46.9 \ -27.1$

$rgb^*_{ds} = 0.334 \ 0.0 \ 1.0$

C_s blue-green

$LCH^*_s = 54.7 \ 47.4 \ 210.0$

$LAB^*_s = 54.7 \ -41.0 \ -23.7$

$rgb^*_{ds} = 0.0 \ 1.0 \ 0.685$

B_s blue

$LCH^*_s = 39.4 \ 39.0 \ 270.0$

$LAB^*_s = 39.4 \ 0.0 \ -39.0$

$rgb^*_{ds} = 0.0 \ 0.399 \ 1.0$

Notes to the CIELAB chroma diagrams (a^*_d, b^*_d), (a^*_s, b^*_s), (a^*_e, b^*_e)

1. For the rgb^*_e -input values the CIELAB data LCH^*_e and LAB^*_e have been calculated.

2. For the calculation of the standard hue angle $h_{ab,s}$ use for any device values rgb^*_e the equation:

$$h_{ab,s} = \text{atan} [r^*_d \cos(30) + g^*_d \cos(150)] / [r^*_d \sin(30) + g^*_d \sin(150) + b^*_d \sin(270)] \quad (1)$$

3. For the 48 or 360 equally spaced standard hue angles $h_{ab,s}$ of the colours of maximum chroma use the seven hue angles of the 60 degree colours s : $h_{ab,s} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0, 390.0$ ($i=0,6$) and the equations for a 48 and 360 step hue circle:

$$h_{48ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (2)$$

$$h_{360ab,sij} = h_{ab,si} + j [h_{ab,si+1} - h_{ab,si}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (3)$$

4. For the 48 or 360 elementary hue angles $h_{ab,e}$ of the colours of maximum chroma use the seven hue angles of the elementary colours e : $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6, 385.5$ ($i=0,6$) and the equations for a 48 and 360 step elementary hue circle:

$$h_{48ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 8 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 7) \quad (4)$$

$$h_{360ab,eij} = h_{ab,ei} + j [h_{ab,ei+1} - h_{ab,ei}] / 60 \quad (i = 0, 1, \dots, 5; j = 0, 1, \dots, 59) \quad (5)$$

5. For any elementary hue angle $h_{ab,e}$ there is a well defined device hue angle $h_{ab,d}$ see the following tables, columns 1 to 5 or 1 to 4.

6. The values rgb^*_{de} produce the output of the device-independent elementary hues

1-003631-L0

SE070-70

$LAB^*_{La0}, YN=0\%, XYZ_{Znw}=3.5, 4.0, 6.0, 86.2, 91.2, 96.3, LAB^*_{nw}=23.6, 0.0, 0.0, 96.5, 0.0, 0.0$

Output: Offset standard print; separation cmy0*, D65, page 7/33

TUB-test chart SE07; 16 hues, offset standard paper APCO input: $rgb/cmyk \rightarrow rgb_d$
48 step hue circles; $rgb-LabCh^*$ tables, 3D=0, de=0, cmy0 output: transfer to $cmy0_d$

1-003631-F0

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.6, 94.4, 157.0, 233.3, 303.9, 359.5$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

[illegible]

1-0031231-L0

SE070-70

LAB*la0, YN=0%, XYZnw=3.5, 4.0, 6.0, 86.2, 91.2, 96.3, LAB*nw=23.6, 0.0, 0.0, 96.5, 0.0, 0.0

Output: Offset standard print; separation cmy0*, D65, page 13/33

TUB-test chart SE07; 16 hues, offset standard paper APCO
48 step hue circles; *rgb-LabCh** tables, 3D=0, de=0, *cmY0*

input: *rgb/cmyk* $\rightarrow$ *rgb*_d
output: transfer to *cmy*_{0d}

~~1-0031231-E0~~

TUV registration: 20130201-SE07/SE07L0NP.PDF / .PS
application for measurement of offset print output, separations

TUB material: code=rh4ta
y0 (CMY0)

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours $RYGCBM_s$: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;
Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.6, 94.4, 157.0, 233.3, 303.9, 359.5$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$	$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}	$LAB^*_{ddx361Mi}(x=LabCh)$	C_d	$rgb^*_{ds361Mi}$	$LAB^*_{dsx361Mi}(x=LabCh)$	$210C_s$	$rgb^*_{dd361Mi}$	$LAB^*_{dex361Mi}(x=LabCh)$	$216C_e$	$rgb^*_{dd361Mi}$	rgb^*_{dd}	rgb^*_{ds}	rgb^*_{de}
233	210	216	0.0	1.0	1.0	57.0	-29.7	-39.8	49.7	233	0.0	1.0	0.0	1.0	1.0
233	211	217	0.0	0.983	1.0	56.6	-29.1	-39.9	49.4	233	0.0	0.983	1.0		
234	212	218	0.0	0.966	1.0	56.2	-28.4	-39.9	49.0	234	0.0	0.967	1.0		
235	213	219	0.0	0.95	1.0	55.9	-27.8	-39.9	48.7	235	0.0	0.95	1.0		
235	214	220	0.0	0.933	1.0	55.5	-27.2	-39.9	48.3	235	0.0	0.933	1.0		
236	215	221	0.0	0.916	1.0	55.1	-26.6	-39.9	48.0	236	0.0	0.917	1.0		
236	216	222	0.0	0.9	1.0	54.8	-26.0	-39.9	47.6	236	0.0	0.9	1.0		
237	217	223	0.0	0.883	1.0	54.4	-25.4	-39.8	47.3	237	0.0	0.883	1.0		
238	218	224	0.0	0.866	1.0	54.0	-24.7	-39.8	46.9	238	0.0	0.867	1.0		
238	219	225	0.0	0.85	1.0	53.6	-24.0	-39.9	46.5	238	0.0	0.85	1.0		
239	220	226	0.0	0.833	1.0	53.1	-23.3	-39.9	46.2	239	0.0	0.833	1.0		
240	221	227	0.0	0.816	1.0	52.7	-22.5	-39.9	45.8	240	0.0	0.817	1.0		
241	222	227	0.0	0.8	1.0	52.2	-21.8	-39.8	45.4	241	0.0	0.8	1.0		
242	223	228	0.0	0.783	1.0	51.8	-21.1	-39.8	45.1	242	0.0	0.783	1.0		
242	224	229	0.0	0.766	1.0	51.3	-20.4	-39.8	44.7	242	0.0	0.767	1.0		
243	225	230	0.0	0.75	1.0	50.9	-19.7	-39.7	44.3	243	0.0	0.75	1.0		
244	226	231	0.0	0.733	1.0	50.4	-19.0	-39.7	44.0	244	0.0	0.733	1.0		
245	227	232	0.0	0.716	1.0	50.0	-18.3	-39.7	43.7	245	0.0	0.717	1.0		
246	228	233	0.0	0.7	1.0	49.6	-17.5	-39.7	43.4	246	0.0	0.7	1.0		
246	229	234	0.0	0.683	1.0	49.1	-16.8	-39.6	43.1	246	0.0	0.683	1.0		
247	230	235	0.0	0.666	1.0	48.7	-16.1	-39.6	42.8	247	0.0	0.667	1.0		
248	231	236	0.0	0.65	1.0	48.2	-15.4	-39.5	42.4	248	0.0	0.65	1.0		
249	232	237	0.0	0.633	1.0	47.8	-14.7	-39.5	42.1	249	0.0	0.633	1.0		
250	233	237	0.0	0.616	1.0	47.3	-13.8	-39.5	41.8	250	0.0	0.617	1.0		
252	234	238	0.0	0.6	1.0	46.7	-12.7	-39.5	41.5	252	0.0	0.6	1.0		
253	235	239	0.0	0.583	1.0	46.1	-11.6	-39.6	41.2	253	0.0	0.583	1.0		
255	236	240	0.0	0.566	1.0	45.5	-10.5	-39.6	40.9	255	0.0	0.567	1.0		
256	237	241	0.0	0.55	1.0	44.9	-9.5	-39.5	40.7	256	0.0	0.55	1.0		
257	238	242	0.0	0.533	1.0	44.3	-8.4	-39.5	40.4	257	0.0	0.533	1.0		
259	239	243	0.0	0.516	1.0	43.7	-7.3	-39.4	40.1	259	0.0	0.517	1.0		
260	240	244	0.0	0.5	1.0	43.1	-6.3	-39.3	39.8	260	0.0	0.5	1.0		
262	241	245	0.0	0.483	1.0	42.5	-5.2	-39.3	39.7	262	0.0	0.483	1.0		
263	242	246	0.0	0.466	1.0	41.9	-4.2	-39.3	39.5	263	0.0	0.467	1.0		
265	243	247	0.0	0.45	1.0	41.2	-3.1	-39.3	39.4	265	0.0	0.45	1.0		
266	244	248	0.0	0.433	1.0	40.6	-2.0	-39.2	39.3	266	0.0	0.433	1.0		
268	245	248	0.0	0.416	1.0	40.0	-1.0	-39.2	39.2	268	0.0	0.417	1.0		
269	246	249	0.0	0.4	1.0	39.4	0.0	-39.0	39.0	269	0.0	0.4	1.0		
271	247	250	0.0	0.383	1.0	38.8	1.0	-38.9	38.9	271	0.0	0.383	1.0		
273	248	251	0.0	0.366	1.0	38.2	2.0	-38.9	38.9	273	0.0	0.367	1.0		
274	249	252	0.0	0.35	1.0	37.6	3.1	-39.0	39.1	274	0.0	0.35	1.0		
276	250	253	0.0	0.333	1.0	37.0	4.2	-39.0	39.2	276	0.0	0.333	1.0		
277	251	254	0.0	0.316	1.0	36.4	5.3	-39.0	39.4	277	0.0	0.317	1.0		
279	252	255	0.0	0.3	1.0	35.8	6.5	-39.0	39.5	279	0.0	0.3	1.0		
281	253	256	0.0	0.283	1.0	35.3	7.6	-39.0	39.7	281	0.0	0.283	1.0		
282	254	257	0.0	0.266	1.0	34.7	8.7	-38.9	39.9	282	0.0	0.267	1.0		
284	255	258	0.0	0.25	1.0	34.1	9.8	-38.8	40.0	284	0.0	0.25	1.0		

1-0031331-L0 SE070-70 LAB*la0, YN=0%, XYZnw=3.5, 4.0, 6.0, 86.2, 91.2, 96.3, LAB*nw=23.6, 0.0, 0.0, 96.5, 0.0, 0.0

Output: Offset standard print; separation cmy0*, D65, page 14/33

TUB-test chart SE07; 16 hues, offset standard paper APCO input: $rgb/cmyk \rightarrow rgb_d$
48 step hue circles; $rgb-LabCh$ *tables, 3D=0, de=0, cmy0 output: transfer to $cmy0_d$

TUB registration: 20130201-SE07/SE07L0NP.PDF /.PS
application for measurement of offset print output, separationcmy0 (CMY0)
TUB material: code=rha4ta

see similar files: <http://130.149.60.45/~farbmietrik/SE07/SE07.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmietrik>

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours *RYGBM*: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.6, 94.4, 157.0, 233.3, 303.9, 359.5$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

$h_{ab,d}$			$h_{ab,s}$	$h_{ab,e}$	rgb^*_{dd361M}					$LAB^*_{dd361Mi}(x=LabCh)$					$rgb^*_{ds361Mi}$					$LAB^*_{dsx361Mi}(x=LabCh)$					$rgb^*_{dd361Mi}$					$rgb^*_{de361Mi}$					$LAB^*_{dex361Mi}(x=LabCh)$					$rgb^*_{dd361Mi}$				
284	255	258	0.0	0.25	1.0	34.1	9.8	-38.8	40.0	284	0.0	0.567	1.0	45.6	-10.5	-39.5	41.0	255	0.0	0.25	1.0	0.0	0.532	1.0	44.3	-8.3	-39.4	40.4	258	0.0	0.25	1.0												
285	256	258	0.0	0.233	1.0	33.5	10.9	-38.9	40.4	285	0.0	0.556	1.0	45.1	-9.8	-39.5	40.8	256	0.0	0.233	1.0	0.0	0.522	1.0	43.9	-7.6	-39.4	40.2	258	0.0	0.233	1.0												
287	257	259	0.0	0.216	1.0	32.9	12.1	-39.0	40.8	287	0.0	0.544	1.0	44.7	-9.0	-39.5	40.6	257	0.0	0.217	1.0	0.0	0.511	1.0	43.5	-6.9	-39.3	40.0	259	0.0	0.217	1.0												
288	258	260	0.0	0.2	1.0	32.2	13.2	-39.0	41.2	288	0.0	0.533	1.0	44.3	-8.3	-39.4	40.4	258	0.0	0.2	1.0	0.0	0.501	1.0	43.2	-6.3	-39.2	39.9	260	0.0	0.2	1.0												
290	259	261	0.0	0.183	1.0	31.6	14.4	-39.0	41.6	290	0.0	0.521	1.0	43.9	-7.6	-39.4	40.2	259	0.0	0.183	1.0	0.0	0.491	1.0	42.8	-5.6	-39.3	39.8	261	0.0	0.183	1.0												
291	260	262	0.0	0.166	1.0	31.0	15.5	-39.0	42.0	291	0.0	0.51	1.0	43.5	-6.8	-39.3	40.0	260	0.0	0.167	1.0	0.0	0.481	1.0	42.4	-5.0	-39.3	39.7	262	0.0	0.167	1.0												
293	261	263	0.0	0.15	1.0	30.4	16.7	-39.0	42.4	293	0.0	0.498	1.0	43.1	-6.1	-39.2	39.8	261	0.0	0.15	1.0	0.0	0.471	1.0	42.1	-4.4	-39.3	39.6	263	0.0	0.15	1.0												
294	262	264	0.0	0.133	1.0	29.8	17.9	-38.9	42.8	294	0.0	0.487	1.0	42.7	-5.4	-39.3	39.7	262	0.0	0.133	1.0	0.0	0.461	1.0	41.7	-3.7	-39.3	39.5	264	0.0	0.133	1.0												
296	263	265	0.0	0.116	1.0	29.2	19.0	-38.9	43.3	296	0.0	0.477	1.0	42.3	-4.7	-39.3	39.7	263	0.0	0.117	1.0	0.0	0.451	1.0	41.3	-3.1	-39.2	39.5	265	0.0	0.117	1.0												
297	264	266	0.0	0.1	1.0	28.7	20.0	-38.9	43.8	297	0.0	0.466	1.0	41.9	-4.0	-39.3	39.6	264	0.0	0.1	1.0	0.0	0.441	1.0	41.0	-2.5	-39.2	39.4	266	0.0	0.1	1.0												
298	265	267	0.0	0.083	1.0	28.3	20.9	-39.0	44.2	298	0.0	0.455	1.0	41.5	-3.3	-39.3	39.5	265	0.0	0.083	1.0	0.0	0.431	1.0	40.6	-1.8	-39.2	39.3	267	0.0	0.083	1.0												
299	266	268	0.0	0.066	1.0	27.8	21.9	-39.0	44.7	299	0.0	0.444	1.0	41.1	-2.6	-39.2	39.4	266	0.0	0.067	1.0	0.0	0.421	1.0	40.2	-1.2	-39.1	39.2	268	0.0	0.067	1.0												
300	267	269	0.0	0.049	1.0	27.3	23.0	-38.9	45.2	300	0.0	0.433	1.0	40.7	-2.0	-39.2	39.3	267	0.0	0.05	1.0	0.0	0.411	1.0	39.8	-0.6	-39.1	39.2	269	0.0	0.05	1.0												
301	268	269	0.0	0.033	1.0	26.8	24.0	-38.9	45.7	301	0.0	0.422	1.0	40.3	-1.3	-																												

1-0031431-L0	SE070-70	LAB*la0, YN=0%, XYZnw=3.5, 4.0, 6.0, 86.2, 91.2, 96.3, LAB*nw=23.6, 0.0, 0.0, 96.5, 0.0, 0.0
--------------	----------	--

Output: Offset standard print; separation cmy0*, D65, page 15/33

TUB-test chart SE07; 16 hues, offset standard paper APCO input: *rgb/cmyk* -> *rgb_d*
48 step hue circles; *rgb-LabCh** tables, 3D=0, de=0, *cmy0* output: transfer to *cmy0_d*

output: transfer to cm_y0_d

1-0031431-F

TUB registration: 20130201-SE07/SE07L0NP.PDF / .PS
application for measurement of offset print output, separations

TUB material: code=rh4ta
y0 (CMY0)

see similar files: <http://130.149.60.45/~farbmeterik/SE07/SE07.HTM>
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmeterik>

TUB registration: 20130201-SE07/SE07L0NP.PDF /.PS TUB material
application for measurement of offset print output, separationcmy0 (CMY0)

Data of Maximum color M in colorimetric system Offset standard print; separation cmy0*, D65 for input or output; Six hue angles of the 60 degree standard colours *RYGBM*: $h_{ab,ds} = 30.0, 90.0, 150.0, 210.0, 270.0, 330.0$;

Six hue angles of the device colours $RYGCBM_d$: $h_{ab,d} = 32.6, 94.4, 157.0, 233.3, 303.9, 359.5$; Six hue angles of the elementary colours $RYGCBM_e$: $h_{ab,e} = 25.5, 92.3, 162.2, 217.0, 271.7, 328.6$

[illegible]

Output: Offset standard print; separation cmy0*, D65, page 16/33

TUB-test chart SE07; 16 hues, offset standard paper APCO 48 step hue circles; *rgb-LabCh** tables, 3D=0, de=0, *cmY0*
input: *rgb/cmyk* → *rgb_d*
output: transfer to *cmY0_d*

output: transfer to $cmy0_d$

http://130.149.60.45/~farbmetrik/SE07/SE07L0NP.PDF /.PS; transfer output

N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 19/33

see similar files: <http://130.149.60.45/~farbmetrik/SE07/SE07L0NP.PDF> / .PS
technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

n/f	HIC*Fd	rgb_Fd	ict_Fd	hsi_Fd	rgb*Fd	LabCh*Fd	rgb**Fd	LabCh**Fd	DE**Fd	hsiMd	rgb*Md	LabCh*Md	
0/648	R00Y_100_100a	1.0	0.0	0.0	1.0	1.0	0.0	0.0	46.4	70.3	44.9	83.4	32.5
1/666	R25Y_100_100a	1.0	0.25	0.0	1.0	1.0	0.25	0.0	54.8	51.4	54.3	74.8	46.5
2/684	R50Y_100_100a	1.0	0.5	0.0	1.0	1.0	0.5	0.0	66.4	28.5	66.7	72.5	66.8
3/702	R75Y_100_100a	1.0	0.75	0.0	1.0	1.0	0.75	0.0	79.1	6.8	80.2	80.5	85.1
4/720	Y00G_100_100a	1.0	1.0	0.0	1.0	1.0	1.0	0.0	88.0	-6.8	89.7	90.0	94.3
5/558	Y25G_100_100a	0.75	1.0	0.0	1.0	1.0	0.75	0.0	80.5	-14.0	77.6	78.9	100.2
6/396	Y50G_100_100a	0.5	1.0	0.0	1.0	1.0	0.5	0.0	70.6	-26.9	62.2	67.8	113.3
7/234	Y75G_100_100a	0.25	1.0	0.0	1.0	1.0	0.25	0.0	58.4	-46.3	44.9	64.5	135.8
8/72	G00B_100_100a	0.0	1.0	0.0	1.0	1.0	0.0	0.0	49.6	-65.0	27.6	70.6	157.0
9/72	G00B_100_100a	0.0	1.0	0.0	1.0	1.0	0.0	0.0	49.6	-65.0	27.6	70.6	157.0
10/76	G25B_100_100a	0.0	1.0	0.5	1.0	1.0	0.5	0.0	53.0	-48.2	-10.8	49.4	192.6
11/80	G50B_100_100a	0.0	1.0	1.0	1.0	1.0	1.0	0.0	57.0	-29.7	-39.8	49.7	233.2
12/44	G75B_100_100a	0.0	0.5	1.0	1.0	1.0	0.5	0.0	43.1	-6.3	-39.3	39.8	260.8
13/8	B00M_100_100a	0.0	0.0	1.0	1.0	1.0	0.0	0.0	25.8	26.0	-38.7	46.7	303.9
14/332	B25R_100_100a	0.5	0.0	1.0	1.0	1.0	0.5	0.0	36.7	56.5	-19.8	59.9	340.6
15/656	B50R_100_100a	1.0	0.0	1.0	1.0	1.0	0.0	0.0	47.2	78.3	-0.6	78.3	359.5
16/652	B75R_100_100a	1.0	0.0	0.5	1.0	1.0	0.5	0.0	46.7	74.0	19.0	76.4	14.4
17/648	R00Y_100_100a	1.0	0.0	0.0	1.0	1.0	0.0	0.0	46.4	70.3	44.9	83.4	32.5
18/688	R00Y_100_050a	1.0	0.5	0.5	1.0	0.5	0.5	0.5	69.5	29.5	25.7	39.2	41.0
19/706	R50Y_100_050a	1.0	0.75	0.5	1.0	0.5	0.75	0.5	81.8	9.9	31.4	32.9	72.4
20/724	Y00G_100_050a	1.0	1.0	0.5	1.0	0.5	1.0	0.5	92.2	-5.1	37.4	37.8	97.7
21/562	Y50G_100_050a	0.75	1.0	0.5	1.0	0.5	0.75	0.5	84.5	-11.7	27.5	29.9	113.1
22/490	G00B_100_050a	0.5	1.0	0.5	1.0	0.5	0.5	0.5	74.3	-22.0	15.9	27.2	144.2
23/404	G50B_100_050a	0.5	1.0	1.0	1.0	0.5	0.5	1.0	79.1	-12.5	-17.7	21.7	234.6
24/368	B00R_100_050a	0.5	0.5	1.0	1.0	0.5	0.5	1.0	59.3	15.8	-19.5	25.1	309.1
25/692	B50R_100_050a	1.0	0.5	1.0	1.0	0.5	0.5	1.0	72.2	33.6	-3.5	33.8	353.9
26/688	R00Y_100_050a	1.0	0.5	0.5	1.0	0.5	0.5	0.5	69.5	29.5	25.7	39.2	41.0
27/506	R00Y_075_050a	0.75	0.25	0.25	0.75	0.5	0.5	0.5	39.0	30.3	49.5	37.8	9.0
28/524	R50Y_075_050a	0.75	0.5	0.25	0.75	0.5	0.5	0.5	18.2	36.9	41.2	63.7	5.4
29/542	Y00G_075_050a	0.75	0.75	0.25	0.75	0.5	0.5	0.5	73.0	0.1	44.0	44.0	89.8
30/380	Y50G_075_050a	0.5	0.75	0.25	0.75	0.5	0.5	0.5	64.2	-11.6	32.1	34.1	109.9
31/218	G00B_075_050a	0.25	0.75	0.25	0.75	0.5	0.5	0.5	54.1	-27.6	18.3	33.1	146.4
32/222	G50B_075_050a	0.25	0.75	0.75	0.75	0.5	0.5	0.5	57.1	-15.7	-16.9	23.0	227.1
33/186	B00R_075_050a	0.25	0.25	0.75	0.75	0.5	0.5	0.5	38.8	16.1	-20.2	25.9	308.6
34/510	B50R_075_050a	0.75	0.25	0.75	0.75	0.5	0.5	0.5	53.8	42.9	0.3	42.9	0.4
35/506	R00Y_075_050a	0.75	0.25	0.25	0.75	0.5	0.5	0.5	39.0	30.3	49.5	37.8	9.0
36/324	R00Y_050_050a	0.5	0.0	0.0	0.5	0.5	0.5	0.5	35.3	44.4	23.5	50.3	27.9
37/342	R50Y_050_050a	0.5	0.25	0.0	0.5	0.5	0.25	0.0	44.3	23.4	33.7	41.0	55.1
38/360	Y00G_050_050a	0.5	0.5	0.0	0.5	0.5	0.5	0.0	53.8	3.3	43.7	43.8	85.6
39/198	Y50G_050_050a	0.25	0.5	0.0	0.5	0.5	0.25	0.0	44.3	-15.5	28.9	32.8	118.3
40/36	G00B_050_050a	0.0	0.5	0.0	0.5	0.5	0.5	0.0	37.8	-38.1	15.3	41.1	158.0
41/40	G50B_050_050a	0.0	0.5	0.5	0.5	0.5	0.5	0.5	40.3	-22.8	-14.8	27.1	212.9
42/4	B00R_050_050a	0.0	0.0	0.5	0.5	0.5	0.0	0.5	24.6	11.7	-20.3	23.5	300.0
43/328	B50R_050_050a	0.5	0.0	0.5	0.5	0.5	0.5	0.5	35.8	49.8	0.0	49.8	359.9
44/324	R00Y_050_050a	0.5	0.0	0.0	0.5	0.5	0.5	0.5	35.3	44.4	23.5	50.3	27.9
45/0	NW_000a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6	0.0	0.0	0.0	0.0
46/91	NW_013a	0.125	0.125	0.125	0.125	0.0	0.125	0.125	30.1	5.2	2.9	6.0	29.1
47/182	NW_025a	0.25	0.25	0.25	0.25	0.0	0.25	0.25	36.9	6.3	5.2	8.2	39.4
48/273	NW_038a	0.375	0.375	0.375	0.375	0.0	0.375	0.375	46.5	9.0	9.2	12.9	45.3
49/364	NW_050a	0.5	0.5	0.5	0.5	0.0	0.5	0.5	56.1	7.9	7.5	10.9	43.3
50/455	NW_063a	0.625	0.625	0.625	0.625	0.0	0.625	0.625	66.2	6.3	7.3	9.7	49.3
51/546	NW_075a	0.75	0.75	0.75	0.75	0.0	0.75	0.75	77.0	4.8	4.7	6.7	44.2
52/637	NW_088a	0.875	0.875	0.875	0.875	0.0	0.875	0.875	87.6	1.8	2.2	2.9	51.0
53/728	NW_100a	1.0	1.0	1.0	1.0	0.0	1.0	1.0	96.4	0.0	0.0	0.0	0.0

Mean color difference of this page:

delta E* = 4.3

TUB registration: 20130201-SE07/SE07L0NP.PDF /.PS
application for measurement of offset print output, separationcnmy0 (CMY0)
TUB material: code=rha4taTUB-test chart SE07; 16 hues, offset standard paper APCO
input: $rgb/cmyk \rightarrow rgb_d$
colors and differences, ΔE^* , 3D=0, de=0, $cmy0$
output: transfer to $cmy0_d$

